

CLAIMS

1. (Currently Amended) A method comprising:

servicing a Web request from a Web application;

associating a Web request Globally Unique Identifier (Web request GUID) with the Web request, wherein events which happen during servicing of the Web request can be identified by the Web request GUID, wherein the servicing comprises executing the Web application ~~that~~ and wherein the Web application interfaces with a server that is servicing services the Web request;

detecting the occurrence of an event in the servicing of the Web request during the execution of the Web application, wherein a kernel trace session component of an operating system of the server performs event buffering to detect the occurrence of the event and traces are processed by a kernel of the operating system when the operating system processes a part of the Web request;

logging by the server a server entry in a server trace log in response to the detecting of the occurrence of the event in the servicing of the Web request, wherein the server entry comprises:

information descriptive of the occurrence of the event in the servicing of the Web request;

a server event GUID corresponding to the event; and

the Web request GUID corresponding to the Web request;

logging by the Web application an application entry having an application GUID in an application trace log, wherein each application entry is correlated with each server entry in the server trace log by a Web request GUID, and wherein at least one of the detecting and the logging are performed by one or more components of the operating system of the server; and

determining which of the information that is descriptive of the occurrence of the event to put into the server entry or application entry, or both the server entry and the application entry, as appropriate, as a function of a predetermined level of verbosity selected from a plurality of levels of verbosity for the Web application and server.

2. (Canceled)

3. (Previously Presented) The method as defined in Claim 1, wherein the server entry is logged in the server trace log during the servicing of the Web request only when the event is selected from the group consisting of:

the event pertains of the functionality of authentication;

the event pertains of the functionality of security;

the event pertains of the functionality of compression;

the event pertains of the functionality of a Common Gateway Interface (CGI); and

the event pertains of the functionality of one or more filters.

4. (Currently Amended) The method as defined in Claim 1, wherein:

the server entry is logged in the server trace log during the servicing of the Web request only when the event pertains to a predetermined filter; and
the information comprises data going into the predetermined filter and data coming out of the predetermined filter.

5. (Canceled)

6. (Canceled)

7. (Currently Amended) The method as defined in Claim [[6]] 1, wherein:

the server services the Web request from the Web application;

the operating system of the server comprises one or more Application Program Interfaces (APIs);

the Web application is executed by, or interfaces with, the server;

the Web application interfaces with at least one said API to log a Web application event as a Web application entry in the server trace log;

the Web application event occurs within the Web application itself; and

the Web application entry comprises:

information descriptive of the occurrence of the Web application event in the servicing of the Web request by the server when the Web application is running

on, or interfacing with, the server; and

the GUID corresponding to the Web request.

8. (Currently Amended) The method as defined in Claim 1, wherein ~~[[:]] a server, having an operating system, services the Web request from the Web application;~~ and at least one of the detecting and the logging are performed by one or more server applications that are executed by the server.

9. (Currently Amended) The method as defined in Claim 8, wherein:
~~the server services the Web request from the Web application;~~
the operating system of the server includes one or more APIs;
the Web application is executed by, or interfaces with, the server;
the Web application interfaces with at least one said API to log a Web application event as a Web application entry in the server trace log;
the Web application event occurs within the Web application itself; and
the Web application entry comprises:
information descriptive of the occurrence of the Web application event in the servicing of the Web request by the server when the Web application is running on, or interfacing with, the server; and
the GUID corresponding to the Web request.

10. (Previously Presented) The method as defined in Claim 1, wherein filtering is performed on a URL basis, wherein each predetermined level of verbosity corresponds to a different number of data types available for use in logging application

entries and server entries, and wherein each data type corresponds to a different kind of data that is descriptive of the particular event.

11. (Currently Amended) The method as defined in Claim 1, further comprising generating a report comprising at least a portion of the information in each said server entry or application entry, as appropriate, for which the Web request or server event GUID in the server entry or application entry, as appropriate, matches a supplied ID, wherein the amount of information in the report is a function of a predetermined level of verbosity selected from a plurality of levels of verbosity.

12. (Currently Amended) The method as defined in Claim 11, wherein: each said server entry and each said application entry is in a binary format; and the generating of the report further comprises using an event GUID corresponding to each said event to map the binary format of each said server entry or application entry, as appropriate, into an event description that is in a format that is human readable.

13. (Currently Amended) The method as defined in Claim 1, wherein the Web request GUID or the event GUID is the first portion of the server entry or application entry.

14. (Currently Amended) The method as defined in Claim 1, wherein the Web request GUID is unique to the Web request with respect to other said Web requests, ~~and wherein and wherein~~ .

15. (Canceled)

16. (Currently Amended) A computer-readable medium having stored thereon computer-executable instructions ~~for performing a method, the method~~ , that when executed by a processor of a computing device, cause the computing device to perform acts comprising:

associating a Web request Globally Unique Identifier (Web request GUID) with a Web request, wherein events which happen during servicing of the Web request can be identified by the Web request GUID, wherein the servicing comprises executing a Web application that interfaces with a server having an operating system and that is servicing the Web request;

servicing the Web request with a server from a Web application that is executing on the server, wherein during the servicing multiple logger streams are simultaneously active to log the events as the Web request is being serviced by the server;

detecting the occurrence of the events during the servicing of the Web request by the server, wherein a kernel trace session component of an operating system of the server performs event buffering to detect the occurrence of each event and traces are

processed by a kernel of the operating system when the operating system processes a part of each Web request;

logging by the server each of the events as server entries in a server trace log, wherein at least one of the detecting and the logging are performed by one or more components of the operating system of the server, and wherein each server entry comprises:

information descriptive of the occurrence of an event;

an event GUID corresponding to the event; and

the Web request GUID corresponding to the Web request;

logging by the Web application an application entry having an application GUID in an application trace log, wherein each application entry is correlated with each server entry in the server trace log by a Web request GUID; and

determining which of the descriptive information to put into the server entry or application entry, or both the server entry and the application entry, as appropriate, as a function of a predetermined level of verbosity selected from a plurality of levels of verbosity for the Web application and server.

17. (Canceled)

18. (Previously Presented) The computer-readable medium as defined in Claim 16, wherein the entry is logged in the server trace log during the servicing of the Web request by the server only when the event is selected from the group consisting of:

the event occurs within the context of a predetermined URL;
the event pertains to the functionality of authentication;
the event pertains to the functionality of security;
the event pertains to the functionality of compression;
the event pertains to the functionality of a CGI; and
the event pertains to the functionality of one or more filters.

19. (Previously Presented) The computer-readable medium as defined in Claim 16, wherein the entry is logged in the server trace log during the servicing of the Web request by the server only when the event pertains to a predetermined filter, wherein the information comprises data going into the predetermined filter and data coming out of the predetermined filter.

20. (Previously Presented) The computer-readable medium as defined in Claim 16, wherein the method further comprises at least one of:
activating the logging when the logging is deactivated; and
deactivating the logging when the logging is activated.

21. (Original) The computer-readable medium as defined in Claim 20, wherein the activating and the deactivating are performed remotely from the server.

22. (Previously Presented) The computer-readable medium as defined in Claim 20, wherein the server trace log is in a remote location from the server.

23. (Original) The computer-readable medium as defined in Claim 16, wherein at least one of the detecting and the logging are performed by one or more components of an operating system of the server.

24. (Previously Presented) The computer-readable medium as defined in Claim 23, wherein:
the operating system of the server comprises one or more APIs; and
the Web application interfaces with at least one said API for the logging of each said Web application event as an entry in the server trace log.

25. (Canceled)

26. (Previously Presented) The computer-readable medium as defined in Claim 16, wherein:
the operating system of the server comprises one or more APIs; and
the Web application interfaces with at least one said API for the logging of each said Web application event as an entry in the application trace log.

27. (Previously Presented) The computer-readable medium as defined in Claim 16, wherein the step of logging of the entry in the server trace log is in response to the detecting of the occurrence of the event in the servicing of the Web request.

28. (Previously Presented) The computer-readable medium as defined in Claim 16, where the method further comprises generating a report containing at least a portion of the information in each said entry for which the Web request GUID in the entry matches a supplied ID.

29. (Previously Presented) The computer-readable medium as defined in Claim 28, wherein:

each said entry is in a binary format; and

the generating of the report further comprises using the event GUID to map the binary format of each said entry into an event description that is in a format that is human readable.

30. (Previously Presented) The computer-readable medium as defined in Claim 16, wherein the Web request GUID is the first portion of the entry.

31. (Previously Presented) The computer-readable medium as defined in Claim 16, wherein the Web request GUID is unique to the Web request with respect to other

said Web requests, and wherein the Web request is for at least one of: a static file; a Common Gateway Interface (CGI); and an active server page (ASP).

32. (Currently Amended) A system having a processor for tracing a Web request on a network, the system comprising:

identifying means for identifying when a predetermined event occurs in a predetermined Web request when the predetermined Web request is being serviced, wherein a kernel trace session component of an operating system of the system performs event buffering to detect the occurrence of the event and traces are processed by a kernel of the operating system when the operating system services a part of the Web request; [[and]]

a logging means, in communication with the identifying means, for logging the event in a server trace log as the event happens, wherein the log of the event in the server trace log comprises:

a GUID corresponding to the predetermined Web request; and
information descriptive of the occurrence of the event when the predetermined Web request is being serviced, wherein the logging means is further for determining which of the information that is descriptive of the occurrence of the event to put into the server entry in the server trace log as a function of a predetermined level of verbosity, wherein the level of verbosity is selected from a plurality of verbosity levels;

a second logging means, in communication with the identifying means, for logging the event in an application trace log after the event happens, wherein the logging of the event in the application trace log comprises:

a GUID corresponding to the predetermined Web request; and
information descriptive of the occurrence of the event when the predetermined Web request is being serviced, wherein the second logging means is further for determining which of the information to put into the application entry as a function of a predetermined level of verbosity, wherein the level is selected from a plurality of verbosity levels; and

a correlation means for correlating each application entry with each server entry in the server trace log by a Web request GUID.

33. (Currently Amended) A network environment comprising a server having a processor, an operating system and multiple simultaneously active logger streams that are concurrently running on the server and that are each trace-enabled, the server servicing Web requests from a Web application while performing Web request-based tracing to produce traces in a server trace log that comprise a Web request GUID for each Web request and to flow each Web request GUID from the server across to the Web application, wherein the Web application produces traces in a Web application trace log, wherein the traces in the server trace log and the Web application trace log comprise information that is descriptive of events which occur during the servicing of the Web request by the server and the Web application, wherein the information in the

traces is determined in part as a function of a predetermined level of verbosity, wherein the level is selected from a plurality of levels of verbosity for the server and the Web application, [[and]] wherein the Web application can correlates each event in the Web application trace log with a server GUID from the server by a Web request GUID, and wherein a kernel trace session component of the operating system of the server performs event buffering to detect the occurrence of the events and traces are processed by a kernel of the operating system when the operating system processes a part of each Web request.

34. (Canceled)

35. (Previously Presented) The network environment as defined in Claim 33, wherein the server returns each said trace from the multiple logger streams to a corresponding said trace-enabled Web application for which the Web request was serviced by the server.

36. (Currently Amended) A server module operating on a server, the server module comprising:

logic stored in a memory configured to service a Web request from a Web application operating on the server;

logic, performed by one or more components of an operating system of the server, configured to detect an occurrence of an event in the servicing of the Web

request, the logic forming part of a kernel trace session component of the operating system of the server, the logic configured to perform event buffering to detect an event when traces are processed by the kernel when the operating system processes a part of the Web request; [[and]]

logic, performed by one or more components of the operating system of the server, configured to log a server entry in a server trace log, wherein the server entry comprises:

information descriptive of the occurrence of the event of the servicing of the Web request; and

a Web request Globally Unique Identifier (Web request GUID) corresponding to the Web request, wherein the Web request GUID is associated with the Web request, so that events which happen during servicing of the Web request can be identified by the Web request GUID which is logged with each of the events; and

logic, performed by one or more components of the operating system of the server, configured to log an application entry in an application trace log, wherein the application entry comprises:

information descriptive of the occurrence of the event of the servicing of the Web request; and

a Web request GUID corresponding to the Web request; and

logic configured to determine which of the information descriptive of the occurrence of the event to put into the server entry, the application entry, or both the

server entry and the application entry, as a function of a predetermined level of verbosity, wherein the verbosity is determined by selecting one of a plurality of discrete indices, the indices corresponding to human-readable labels, wherein the descriptive information of the event comprises an event GUID and human readable text, and wherein event GUIDs may be correlated with Web request GUIDs.

37. (Canceled)

38. (Currently Amended) The server module as defined in Claim 36, further comprising logic configured to limit the entries in the server trace log that correspond to a predetermined said event that is selected from the group consisting of:

the event occurs within the context of a predetermined URL;

the event pertains of the functionality of authentication;

the event pertains of the functionality of security;

the event pertains of the functionality of compression;

the event pertains of the functionality of a CGI; and

the event pertains of the functionality of one or more filters.

39. (Currently Amended) The server module as defined in Claim 36, wherein:
the entry is logged in the server trace log during the servicing of the Web request only
when the event pertains to a predetermined filter; and

the information includes data going into the predetermined filter and data coming out of the predetermined filter.

40. (Canceled)